STATE OF ILLINOIS

ILLINOIS COMMERCE COMMISSION

NORTH SHORE GAS COMPANY	)	
	)	
Proposed General Increase	)	No. 07-0241
In Rates for Natural Gas Service	)	
	)	
	)	
THE PEOPLES GAS LIGHT AND	)	
COKE COMPANY	)	
	)	
Proposed General Increase	)	No. 07-0242
In Rates for Natural Gas Service	)	

DIRECT TESTIMONY OF

WILLIAM L. GLAHN

Piedmont Consulting, Inc.

ON BEHALF OF THE
THE PEOPLE OF THE STATE OF ILLINOIS,
THE CITY OF CHICAGO AND THE CITIZENS UTILITY BOARD

JULY 3, 2007

I. STATEMENT OF QUALIFICATIONS

Q. Would you please state your name, address, and occupation?

A. My name is William L. Glahn. My business address is Suite 500, 701 Fourth Avenue South, Minneapolis, Minnesota. I am the principal and owner of Piedmont Consulting, Inc., a consulting firm specializing in energy-related (natural gas and electricity) services.

Q. Please describe your utility background and experience.

A. Since beginning my energy consulting practice in 1995, I have represented customers before regulators and legislators, managed energy supply planning engagements, bought and sold energy in competitive markets, and performed cogeneration and municipalization feasibility studies. In regulatory and legislative proceedings, I have testified on topics ranging from utility cost of capital, energy efficiency programs, cost of service, rate design, weather normalization, to service territory expansion issues. My detailed resume is included as GCI Exhibit WLG-3.1, Schedule 1.

Q. Would you outline your educational background?

A. In 1995, I received a Master of Business Administration degree with emphasis in finance from the Colgate Darden Graduate School of Business Administration at the University of Virginia, Charlottesville, Virginia. In 1989, I received a Bachelor of Arts degree in Economics from the University of Virginia.

Q. Please describe your professional background.

A. From 1989 through 1994, I held research- and analysis-related positions of increasing responsibility within the Federal Reserve System. In July 1995, I joined the management consulting firm of Dahlen, Berg & Co., and have held consulting and management-

related positions of increasing responsibility. In July 2006, I founded my own firm, Piedmont Consulting, Inc.

Q. Have you testified previously before the Illinois Commerce Commission?

A. No. I have not.

II. PURPOSE OF TESTIMONY

Q. What is the purpose of your testimony?

The purpose of my testimony is to address issues related to the embedded cost of service studies ("ECOSS") presented by the Peoples Gas Light & Coke Company ("Peoples Gas") and North Shore Gas Company ("North Shore Gas"), the proposed rate design for Service Classification Nos. 1 and 2, and the proposed use of 10-year data in weather normalizing revenues. Specifically, I will address the following specific areas:

- Rate Design and Cost of Service Principles
- Peoples'/North Shore's ECOSS, including:
  - Division of Service Classification 1 into 2 sub-classes
  - Impact on Low and Fixed Income Customers of the Companies' Proposed Rate Design
  - Allocation of FERC Account 385
- The Companies' Proposed Rate Design, including:
  - Increase in Customer Charges
  - Volumetric (Per Therm) Charges
  - Increase in Miscellaneous Charges
- Use of 10-year data for weather normalization

Q. By whom were you engaged in this case?

A. I was engaged by the Illinois Attorney General, representing the People of the State of Illinois. The Citizens Utility Board and the City of Chicago are also co-sponsoring this testimony.

Q. What is the scope of the work you performed in this proceeding?

A. The scope of my work included an examination of Peoples Gas' and North Shore Gas' (together, "the Companies") use of their ECOSS to allocate cost recovery responsibility among customer classes, certain rate design proposals affecting S.C. 1 (residential) customers, and the Companies' proposed basis for weather normalization of projected revenues. To support that effort, I reviewed the Companies' filings, including testimony, exhibits, and workpapers and the Companies' responses to the numerous data requests propounded in this proceeding. I also performed analyses of information related to the Companies' cost of service, rate design, and weather normalization.

In the course of our review of the Companies' filings, the Attorney General issued several data requests on these topics. A number of these information requests, along with the utilities' answers, are included as schedules to the Exhibit to my testimony.

III. SUMMARY OF TESTIMONY

Q. Please summarize your testimony.

A. In the remaining sections, I lay out principles of rate regulation, make recommendations regarding Peoples Gas and North Shore Gas proposed embedded cost of service study and rate design. In addition, I recommend use of 30-year weather data when weather-normalizing test-year revenues.

Q. Please summarize your recommendations.

A. My recommendations to the Commission are as follows

Cost of Service:

- Service Classification No. 1 should not be divided into heating and non-heating customers.
- Any rate increase should be proportionately allocated to Service Classifications to conform with the equity principle of rate design.
- FERC Account 385 should be allocated entirely to Service Classification No. 4.
- Any increase in customer charges should be reasonable and comparable to current levels and charges levied by other Illinois natural gas utilities.

Rate Design

- Any increase in miscellaneous charges should be cost-based.

Weather Normalization

- Peoples Gas and North Shore Gas should use 30-year data for the weather-normalization of revenues.

Q. Please outline the remainder of your testimony.

A. The remainder of my testimony consists of the following sections:

- Section IV. Rate Design and Cost of Service Principles
- Section V. Embedded Cost of Service Study
- Section VI. Rate Design
- Section VII. Weather Normalization

IV. RATE DESIGN AND COST OF SERVCE PRINCIPLES

Q. Why are embedded cost of service studies necessary?

A. The fundamental driver for just and reasonable rates is the cost of service. All such costs must, of course, be reasonable in amount and prudently incurred. The Commission has consistently used embedded (book) costs in rate setting for the natural gas utilities it regulates. Because costs change over time and because many utility costs are common to more than one customer, class or function, studies are needed to identify directly assignable costs and to allocate joint or common costs. As explained by the American Gas Association (AGA) in their text, *Gas Rate Fundamentals*,

> Two general criteria underlie utility rates: rates should not be "unduly discriminatory" and the investments of the utility must be "used and useful." These two requirements trigger the need for cost-of-service studies.[1]

Q. How does the AGA define "not unduly discriminatory"?

A. The AGA defines the phrase "not unduly discriminatory" as follows:

> The "not unduly discriminatory" criterion means that all customers served on the utilities' rate schedules must be treated on a consistent and fair basis.[2]

The AGA goes on later to add:

> "To conform, a utility's total cost of service must be apportioned such that each group of customers pays for the costs it causes the utility to incur. The cost-of-service study is the vehicle for making this assessment explicit."[3]

[1] The American Gas Association, Gas Rate Fundamentals, Fourth Edition, Arlington, VA, 1987. Pages 131-132.
[2] *Ibid*., p. 132.
[3] *Ibid*., p. 132.

These principles, cost causation in particular, are consistent with the rate making principles regularly applied by the Commission.

Q. What are the typical objectives in rate design?

A. As described by the AGA, the typical objectives of rate design include the following:

- Achieving the revenue requirement
- Economic efficiency
- Fairness or equity
- Simplicity and administrative ease
- Conservation of resources
- Stability and gradualism
- Social goals
- Environmental protection
- Employment
- Balance of payments[4]

As the AGA notes, "[r]atemaking objectives often conflict, requiring regulators and utility rate experts to balance objectives and functions rather than try to realize a single overriding objective."

Dr. James Bonbright lists a number of "attributes of a sound rate structure." His sixth attribute reads as follows:

> 6. Fairness of the specific rates in the apportionment of total costs of service among the different ratepayers so as to avoid arbitrariness and capriciousness and to attain equity in three dimensions: (1) *horizontal* (i.e., equals treated equally); (2) *vertical* (i.e., unequals treated unequally); and (3) *anonymous* (i.e., no ratepayer's demands can be diverted away un-economically from an incumbent by a potential entrant).[5] (Emphases in the original).

Q. Do Peoples Gas and North Shore Gas acknowledge these same objectives and attributes in designing rates?

[4] *Ibid*., p. 152.
[5] Bonbright, James C., Albert L. Danielsen, and David R. Kamerschen, *Principles of Public Utility Rates*. Second Edition, Arlington, VA: Public Utility Reports, Inc. 1988, pp. 383-384.

A. The Companies do not entirely embrace the same objectives and attributes described by the AGA and Bonbright. In her Direct Testimony, company witness Valerie Grace lists the *utility's* objectives in designing rates:

> (1) better align costs and revenue recovery,
> (2) provide more equity between and within rate classes
> (3) maintain rate design continuity
> (4) reflect gradualism
> (5) retain customers on the system
> (6) consolidate certain transportation riders while providing new service options for transportation customers.[6]

Ms. Grace notes that her testimony covers only objectives 1 through 5.[7]

In assessing the Peoples Gas' and North Shore Gas' proposed rate design, it is appropriate to compare the Companies' objectives with the rate making objectives and attributes of sound rate design identified by the AGA and Bonbright. If we map the Companies' objective (1) with "achieving the revenue requirement," map (2) with "equity," map (3) and (4) with "stability and gradualism," and map (5) with Bonbright's anonymous equity, then we are left with some notable omissions. Missing from the Companies' stated objectives is any acknowledgement of economic efficiency, fairness, simplicity and administrative ease, conservation of resources, social goals, environmental protection, employment or balance of payments.

In assessing the effectiveness of a rate design, it is important to consider from whose perspective we are examining the subject. Ms. Grace's five objectives effectively state the case from the point of view of the Companies: they understandably place the revenue requirement objective first. From the customer viewpoint, the ratepayer would

[6] See Ms. Grace's Peoples Gas Testimony, p. 4, lines 69 through 72, and North Shore Gas Testimony, page 4, lines 69 through 72.
[7] *Ibid*., p. 4, lines 72 and 73.

more likely place fairness and equity objectives, with simplicity and gradualism objectives that help to ensure equity is promoted. Customers are also concerned with social goals, conservation, and environmental objectives, which are sometimes aligned with Company objectives and sometimes not. Although I may not address all objectives in my testimony, I believe that all are important for the Commission to consider.

Q. In designing utility rates, are there any legitimate reasons to deviate from cost of service?

A. Yes. In trying to balance the often conflicting objectives in rate design, there may be circumstances in which it is appropriate to deviate from a strict cost of service approach in setting rates. Embedded cost of service studies are not tablets found in the desert, infallible and containing all knowledge. Rather, cost-of-service studies involve an almost infinite number of judgments to define rate classes, and to functionalize and allocate common costs. Even if, individually, all of these judgments were reasonable, collectively, they may produce an unreasonable result. When we find that the cost of service study, and the rate design derived therefrom, will not result in rates that meet basic tests of fairness and gradualism, for example, then it would be entirely appropriate for the regulator to make adjustments to balance the various objectives.

The AGA has stated:

> Although the allocated cost-of-service process indicates a certain level of costs for each class, a number of other considerations must be taken into account before rate levels can be developed. Objectives of rate design other than the cost of providing service to each class of customers include: rate stability, revenue stability, fairness, efficiency, and customer understanding."[8]

[8] American Gas Association and Edison Electric Institute, *Introduction to Public Utility Accounting*, Fifth Edition, 2001, p. 80.

Bonbright cites a number of circumstances[9] under which it is appropriate to deviate from cost of service, acknowledging that -- due to the limitations of the human mind and the complexity of cost relationships (among other items) – perfect matches of costs and rate design with ratemaking objectives are difficult.

> Unfortunately, no such simple identification of reasonable rates with rates measured by costs of service is attainable.[10]

In recognition of these observations, I believe it is appropriate, and indeed necessary, for the Commission to consider the various public policy goals enumerated by the AGA and Bonbright when evaluating the Companies' cost of service study for purposes of setting rates in this proceeding.

SECTION V. EMBEDDED COST OF SERVICE STUDY

Q. Did you review the embedded cost of service studies prepared by Peoples and North Shore?

A. Yes, I reviewed the embedded cost of service studies (ECOSS) prepared by the Companies, as described by Ms. Grace in her Direct Testimonies for Peoples Gas (pages 4 through 8) and North Shore Gas (pages 4 through 8) and by Ronald J. Amen in his Direct Testimonies for Peoples Gas (pages 6 through 36) and North Shore Gas (pages 6 through 34).

Q. What is your overall impression of the utilities' ECOSS?

A. While it is perhaps useful as a starting point, the ECOSS prepared by the Companies fails to properly allocate the proposed revenue increase among the various service

[9] See Bonbright, pages 390-395.

classifications and fails to justify the proposed changes in rate classifications, rate designs, and rate structures. In addition, it suffers from some specific flaws.

Allocation of Proposed Revenue Increase

Q. How do Peoples Gas and North Shore Gas propose to allocate the proposed revenue increase among the various rate classes?

A. As discussed in Ms. Grace's Direct testimony, the utilities allocate the proposed revenue increase for Peoples Gas (assuming there is no Rider UBA) of $100,803,557[11] (an overall increase of more than 27 percent) and North Shore Gas (assuming there is no Rider UBA) of $6,314,000 (an overall increase of 2.2 percent) using what they describe as the Equal Percent of Embedded Cost ("EPEC") method.

As Ms. Grace explains:

> The EPEC method provides a gradual movement toward equalizing rates of return by allocating the increase portion of the total revenue requirement on a cost of service basis.[12]

She later adds that, "this method moves the small residential service rates closer to cost in a gradual manner."[13] These are laudable goals, but the exact method used by the utilities to implement EPEC produces a result that cannot be described as fair.

Q. How do current rates compare to the Companies' proposed cost of service?

A. The Commission should understand that the various rate classes are not currently at their respective cost of service levels, as proposed by the companies. In general, the residential classes are somewhat below cost of service, and the commercial classes are

[10] Bonbright, p. 391.
[11] See Peoples Exhibit VG-1.3, page 2 of 2.
[12] Ms. Grace Direct Testimony, page 7, lines 136-138.

above cost of service. Neither the Companies' proposal nor my proposals will achieve perfect alignment at the proposed cost of service. However, both proposals move the classes closer to the goal and I believe that my proposal does so more fairly.

Q. How do the utilities' ECOSS fail to properly allocate the proposed revenue increase among the various rate classifications?

A. Rather than equalize rates across all Service Classifications, the utilities have chosen to equalize rates across arbitrary subgroups. In doing so, they propose disparate increases among various customer classes that do not meet sound rate design criteria.

As an example, let us examine how the proposed revenue increase for Peoples Gas is allocated among the various proposed service classifications, as shown in Peoples Gas Exhibit VG-1.3 (page 2 of 2). In this exhibit, Column A shows the service classification, Column B shows the current revenue by service classification, Column C shows the proposed share of embedded cost by service classification and column D shows how each service classification fares against this assumed cost of service.

This exhibit alleges that current revenue for each of the service classifications are below their assumed embedded cost of service (without Rider UBA). Of the large customer classifications, S.C. 2 (General Service) and S.C. 4 (Large Volume Demand Service) come closest to their respective costs of service, on both an absolute dollar and a percentage basis.

The proposed allocated revenue increase raises the cost recovery percentage of most classes. However, when it comes to allocating the rate increase, the business classifications are not treated remotely the same, violating the principle of horizontal equity (equals treated equally). Classification S.C. 2 gets an increase of almost 22

[13] *Ibid*., page 7, lines 142-143.

percent, but S.C. 3 gets an increase of only 14 percent and S.C. 4 receives an increase of less than one-tenth the size of S.C. 2's, at 2.12 percent. As shown in Ex. VG-1.3, page 2, following the Peoples Gas proposal, S.C. 4 would continue to pay less than its assumed cost of service, while S.C. 2 would go from slightly below cost to more than 21 percent above cost.

Despite being grouped with S.C. 6 and 8, Service Classification No. 7 is not allocated any of the increase. Ms. Grace states that,

> S.C. 7, Contract Service, was excluded from consideration, because the revenues from customers served under this service classification are based on a negotiated rate rather than the cost of service filed in this case. These contracts have been filed with the Commission.[14]

Regardless of how prices are determined for members of Service Classification No. 7, there is a cost to serve these customers. By excluding S.C. 7 from the EPEC exercise, Peoples Gas assumes that the cost to serve this group of customers has not increased since 1995, while the cost to serve all other customers has increased more than 27 percent. Since all customers are served by the same system, some imputed allocation of the proposed increase to this service classification would be entirely appropriate.

The proximate cause of this unequal treatment is the arbitrary grouping of the Service Classifications: Nos. 1 and 2 are in the first group, 3 and 4 comprise the second group and 6, 7, and 8 are in the last group. In her testimony, Ms. Grace does not fully explain why the classes have been grouped in this manner.

Q. How would you propose to adjust the allocation of the proposed revenue increase across the rate classes?

[14] Ms. Grace Direct Testimony, p. 8, lines 161 through 164.

A. As shown in my GCI Exhibit WLG -3.1, Schedule 2, I would apply a modified version of the utilities' method, one more akin to an equal percentage of revenue increase. My method will be applied across all service classifications, without regard to Peoples Gas' sub- groupings. To minimize unnecessary rate design modifications for the purpose of assessing equal treatment among similar customers (Bonbright's horizontal equity), I accept the customer class groupings shown in Ms. Grace's exhibit.

In order to achieve better fairness and equity across the rate classes, I set Service Classification Nos. 6 and 8 at their assumed cost of service, as People Gas did. However, I impute an increase of 26.6 percent (the average system increase) to S.C. 7, to reflect the increase in the cost to serve these customers.

To achieve horizontal equity, I then assign the three business rate classes, Nos. 2, 3, and 4 the same percentage increase of 21 percent, which is far less than the average 26.6 percent increase for all rate classes. Having all three receive the same percentage increase in revenues preserves the horizontal equity of these groups, but setting their increases at less than the company average moves two of these classes toward their cost of service. This approach still leaves Service Classification No. 2 paying 121 percent of assumed costs, while having S.C. 3 pay only 107 percent and S.C. 4 pay 116 percent. This result appears much more equitable than having the business customers in S.C. 2 paying 121 percent of cost, while business customers in S.C. 4 pay only 98 percent. Finally, as for the two S.C. 1 designations: for Non-Heating, I allocate the same dollar amount as allocated by company witness Grace in her Exhibit VG-1.2, page 2. The remaining increase goes to the Heating customers. This allocation within S.C. 1 moves

the two subgroups slightly closer together in terms of percentage of cost of service paid, improving horizontal equity.

Again, it is important to note that neither my proposal nor the Companies' has the rate classes at their respective cost of service. Both proposals, in the pursuit of gradualism and equity have the residential customers somewhat below and the commercial classes somewhat above the Companies' cost estimates. However, my proposal, with more proportionate increases for each class, better serves the cause of equity.

Bifurcation of Service Classification No. 1

Q. How does the cost of service study fail to properly classify customers?

A. The ECOSS proposed by the utilities would improperly divide Service Classification No. 1 (Small Residential) into two sub-classifications (Heating and Non-Heating Services).

Q. Why do the utilities propose to divide Service Classification No. 1 into Heating and Non-Heating?

A. As claimed by company witness Grace in her Direct Testimony,

> Bifurcating S.C. No. 1 will allow the Company to meet its first two objectives, which are to (1) better align costs and revenue recovery and (2) to provide more equity between and within rate classes.[15]

Later, Ms. Grace is more specific, citing the difference in costs between the two groups,

> This significant difference in fixed costs means that recovery of such costs through fixed charges under a single service classification would over burden smaller use non-heating customers.[16]

Q. Why do you believe that this division is improper?

[15] See Ms. Grace Direct Testimony, p. 11, lines 230 through 232.

A. In theory, I am not opposed to having separate classes for heating and non-heating customers. Indeed, such divisions are common in the industry.[17] However, as implemented by the utilities in their ECOSS, I have identified three problems (that are not unrelated) with the resulting division of costs between the two groups:

- The proportion of costs assigned to heating customers appears implausibly high.
- The resulting rates disproportionately impact the most vulnerable customers.
- The resulting revenue allocation appears to shift the alleged subsidy from heating customers to non-heating customers.

Q. Do any other Illinois natural gas utilities make this distinction between heating and non-heating?

A. I am not aware of another ICC-regulated natural gas utility that divides its residential customer class between heating and non-heating customers.

Q. How do the resulting cost assignments appear implausibly high?

A. To see how the resulting cost assignments appear implausibly high, I examined Peoples Gas workpaper WPE-6.4, reprinted in my Exhibit WLG-3.1 as Schedule 3. This workpaper shows, by service classification, the allocated costs for meters, regulators, and services. My Exhibit WLG -3.1, Schedule 4, calculates the average cost, per customer, of each of these items, for each Service Classification.

My Exhibit's Schedule 4 shows that for both non-heating and heating residential customers, the cost per meter is virtually identical: $162.20 vs. $162.24, respectively. This result is not surprising, as all customers require meters, and regardless of primary use (heating vs. non-heating) one would expect the meters to be the same. As for

[16] See Ms. Grace Direct Testimony, p. 10, lines 202 through 205.
[17] See AGA's *Gas Rate Fundamentals*, p. 132.

regulators, non-heating customers' cost per unit is only $27.84, less than a third of the cost of regulators for heating customers.

The cost per unit for services for non-heating customers averages out at $266.09, roughly one-third the cost for heating customers of $773.16. One would imagine that the cost drivers for a service would include construction costs and labor costs for the installation of the piping. Such costs should vary little by the size of pipe, at the sizes typically used for residential customers. Also, what happens when a non-heating customer decides to install a gas furnace and convert to a heating customer? Does the utility send out a new crew to dig up the old service and install a new, larger one? Or does the utility install residential services to accommodate a range of end uses, now and in the future? In any event, a three to one cost differential for services suggests that the utility has allocated too many fixed costs to heating customers and too little for non-heating customers, thereby supporting the Companies' proposed bifurcation with an artificial cost of service disparity.

Impact on Low and Fixed Income Customers

Q. How does this bifurcation of S.C. 1 disproportionately impact the most vulnerable customers?

A. The bifurcation of Service Classification No. 1 into non-heating and heating customers, results in significantly higher rate increases for heating customers. Thus, the larger increase is imposed on customers with less flexibility in peak winter consumption and, because their usage is not limited to cooking appliances, less ability to substitute energy

sources. As it happens, low income and fixed income customers appear to fall disproportionately into the heating customer category, as discussed below.

Peoples Gas Exhibit VG-1.4, page 2 of 2, shows the proposed rate changes for each Service Classification, assuming no Rider UBA is implemented. For Service Classification 1 N (non-heating) the Company proposes to increase the customer charge from $9.00 per month to $11.25 per month, an increase of $2.25 or 25 percent. For Service Classification No. 1 H (heating), the Company proposes to increase the customer charge from $9.00 per month to $19.00, an increase of $10.00 or 111 percent. This 111 percent increase in fixed charges is even less defensible when one considers that an increase of that size can be accommodated within the revenue requirement only because of the proposal by Peoples Gas to *decrease* the per therm distribution charges.

North Shore heating customers likewise face significant increases in their monthly customer charge. North Shore Gas Exhibit VG-1.3, page 2 of 2, shows the proposed rate changes for each Service Classification, assuming no Rider UBA is implemented. For Service Classification 1 N (non-heating), the Company proposes to increase the customer charge from $8.50 per month to $10.50 per month, an increase of $2.00 or 23.5 percent. For Service Classification No. 1 H (heating), the Company proposes to increase the customer charge from $8.50 per month to $16.00, an increase of $7.50 or 88 percent. Again, this 88 percent increase in fixed charges is even less defensible in light of the proposal by Peoples to *decrease* the per therm distribution charge for higher volumes.

By definition, the customer charge is a fixed charge: it cannot be avoided by cutting back on usage. The impact of fixed charges, like regressive taxes, falls hardest

upon those of low income or fixed incomes, in that the fixed charges represent a higher percentage of income for these group.

Variable charges, like proportional taxes, can be viewed as more equitable to low income and fixed income. Presumably, higher income residential customers will have larger homes, requiring more natural gas for space and water heating, than the typical low income or fixed income customer. Increases in the per therm distribution charge, which varies with usage, will fall harder on those with larger homes and more usage, presumably proportional to their usage and likely higher incomes.

However, that is not to say that low and fixed income customers are unaffected by increases in volumetric charges. Chicago, like most densely populated urban areas, has in its housing stock a large portion of older dwellings with less than adequate insulation, with older, less efficient appliances. Here, a significant increase in volumetric charges will also harm low-income customers who must use more energy per unit of end use benefit. The Commission must carefully balance increases in each rate element to achieve an overall fairness to all customers.

Q. **Which Service Classification appears to include more vulnerable customers?**

A. The Attorney General issued data request No. AG 8.23 to the Companies to determine how many customers participating in certain assistance programs would fall into each subcategory of Service Classification No. 1. The data request sought information about participation in the following programs:

- Low Income Home Energy Assistance Program (LIHEAP)
- Share the Warmth
- Illinois Patriot Plan

Participation in both LIHEAP[18] and Share the Warmth[19] is limited by family income. Participation in the Illinois Patriot Plan[20] is limited to residences whose primary occupant is on active military duty. Since participation is voluntary, my belief is that the most vulnerable populations, consisting of low income and fixed income customers, would self-select into these programs.

As can be derived from Peoples Workpaper WPE-6.4, of the total population in Service Classification No. 1, heating customers, comprise 82.2 percent of the total, by test-year customer count.

From Peoples Supplemental Response to AG Data Request 8.23, included as Schedule 5 of my Exhibit, I have created the table below, which shows the relative participation in the programs, by sub-category:

	Participants		%
Peoples Gas Program	**No. 1N**	**No. 1H**	**Heating**
LIHEAP	0	82,199	100.0%
Share the Warmth	19	9,011	99.8%
Illinois Patriot Plan	2	10	83.3%

[18] See http://www.peoplesenergy.com/residential/res_sectiondetail.asp?PAGE=residential_liheap.
[19] See http://www.peoplesenergy.com/residential/res_sectiondetail.asp?PAGE=residential_share_the_warmth.
[20] See http://www.peoplesenergy.com/residential/res_sectiondetail.asp?PAGE=residential_patriot_plan.

For each of the programs, the percentage enrolled for heating customers exceeds the share of heating customers in Service Classification No. 1, overall (which currently includes both Non-Heating and Heating customers). This result supports my assertion that low income and fixed income customers will fall disproportionately into the Heating subcategory.

Q. What is the significance of this result?

A. In my view, the significance is that the proposed rates resulting from the utilities' bifurcation of Service Classification No. 1 also do not meet the rate design objective of "Social Goals."

Q. What are "Social Goals"?

A. As defined by the AGA:

> Social ratemaking goals involve rate designs that advance the welfare of a particular group in society. For example, utility "lifeline" rates can reduce the impact of rate increases on customers least able to pay for gas service, such as persons on fixed incomes. For such customers, higher utility prices may mean a significant decrease in well-being.[21]

The National Association of Regulatory Utility Commissioners (NARUC) has this to add on the subject, in their *Gas Distribution Rate Design Manual*:

> Consideration also needs to be given to designing rates which are responsive to the social needs of our society. Like political factors, social factors are nebulous and ill-defined, but not unimportant…Suffice it to say that rate designers should be aware of the social and political implications of their work. Gas rate design is not some abstract application of economic principles, but rather a practical exercise which affects customers in their daily lives.[22]

[21] AGA, *Gas Rate Fundamentals*, Fourth Edition, p. 155.
[22] National Association of Regulatory Utility Commissioners. *Gas Distribution Rate Design Manual*, June 1989, p. 57.

Q. Have the utilities given any consideration to social goals in their cost of service and rate design efforts?

A. I do not see where the utilities have given any consideration to social goals in preparing their cost of service studies or rate design. Social goals were not included among the goals stated by Ms. Grace in describing the Companies' rate design objectives. Illinois seasonal prohibitions on shut-offs and state funding for vulnerable populations identifies the provision of energy utility service as an important social goal.

Appearance of Subsidy has Shifted

Q. Does the Companies' proposed bifurcation of Service Classification No. 1 appear to have fixed the apparent subsidy of heating customers by non-heating customers?

A. No. The Companies make much of the alleged higher fixed costs of the heating customer, forcing the non-heating customers to subsidize the heating customer. However, examining the overall revenue picture indicates that, if anything, the overall subsidy moves in the other direction. In fact, the proposed bifurcation of Service Classification No. 1, in conjunction with the utilities application of EPEC for allocation of the proposed revenue increase, appears to have shifted the alleged subsidy, so that now heating customers will be subsidizing non-heating customers.

Referring again to Peoples Gas Exhibit VG-1.3 (page 2 of 2), Columns B and C show that, currently non-heating customers pay $19,319,243 of the proposed $30,882,184 in cost of service for this group, or 62.55 percent, before application of the proposed rate increase. Heating customers currently pay $214,504,041 of the proposed $302,396,573 cost of service for this group, or 70.93 percent, before application of the proposed rate

increase. From this analysis, it would appear that it, if there is a subsidy, it is the heating customer who is subsidizing the non-heating customer.[23]

The Exhibit then shows, in Column I, that including Peoples' proposed rate changes would bring both groups closer to their proposed cost of service. However, relative to one another, the two groups would be exactly the same distance apart, in terms of covering their total cost of service. Today the difference is 70.93 percent minus 62.55 percent or 8.38 percent. Accepting Peoples' recommendations, the gap narrows only slightly, 92.7 minus 84.4, or 8.3 percent. In terms of subsidy mitigation, the only thing accomplished by the proposed bifurcation is to saddle heating customers with a much larger increase in customer charges. As shown in Peoples Gas Exhibit VG-1.4, page 2 of 2, Peoples proposes to decrease the per therm distribution charge for Heating customers while increasing the charge for non-heating customers. (For North Shore Gas, the Company is proposing to decrease per therm charges for heating customers only above the 50 therm level.)

As discussed in the Rate Design section of my testimony below, the Companies' proposed Customer Charge rates should be revised to correct these defects.

[23] The Companies do not include a similar Exhibit with their North Shore Gas filing.

FERC Account 385

Q. Are there any other cost-of-service related changes that you are recommending?

A. Yes. In reviewing the proposed cost of service for Service Classification No. 2, I became aware of the allocation method used by the utilities for costs included in FERC Account 385.

Q. What is FERC Account 385?

A. According the natural gas Uniform System of Accounts (USA) used by the Federal Energy Regulatory Commission (FERC), Account 385 is described as follows:

> 385 Industrial measuring and regulating station equipment.
>
> This account shall include the cost of special and expensive installations of measuring and regulating station equipment, located on the distribution system, serving large industrial customers.

The sort of items to be charged to in this account include the following, as described in FERC Account 378:

1. Automatic control equipment.
2. Foundations.
3. Gauges and instruments.
4. Governors or regulators.
5. Meters.
6. Odorizing equipment.
7. Oil fogging equipment.
8. Piping.
9. Pressure relief equipment.
10. Vaults or pits, including valves contained therein.

Q. What sort of customers should be classified as "large industrial customers"?

A Based on my experience, I would expect to find "large industrial customers" to be purchasing service under Service Classification No. 3 (Large Volume Service) or S.C. No. 4 (Large Volume Demand Service).

Q. How does Peoples Gas allocate the cost for FERC Account 385?

A. As explained by company witness Ronald J. Amen in his Direct Testimony,

> For Industrial Metering & Regulating Station Equipment – Account No. 385 and Other Property on Customer Premises – Account No. 386, a direct assignment of this plant to Service Classification Nos. ("Rate") 2 and 4 was facilitated by the identification in the property records of specific equipment with individual customers in these classes.[24]

Consulting Peoples Gas Exhibit RJA-1.3, page 1 of 28, I find that of the $373,407 in account 385, $351,911, or 94.2 percent, has been assigned to S.C. 2.

Q. Do you agree with the direct assignment of these costs?

A. No. S.C. 2 (General Service) includes more than 84,000 test-year customers. It seems unlikely that the utility keeps records as detailed for this rate class as it does for No. 4.

Furthermore, it seems unlikely that any customer classified as "General Service" (No. 2) would be served with equipment properly described as "special and expensive." General service customers typically include small businesses, such as dry cleaners, fast food franchises, small offices and the like. While not major employers, individually, these are the types of businesses that, collectively, provide a disproportionate share of the nations' employment and employment growth, magnifying the economic impact of misallocated costs.

[24] See Mr. Amen's Direct Testimony, p. 29, lines 648 through 651.

Q. What do you conclude from the utilities' treatment of FERC Account 385?

A. Admittedly, the dollars involved in this account are not as significant as some other cost of service issues, not with a utility boasting more than $2.4 billion of plant-in-service. However, from this episode, I conclude that one or more of the following must be true:

- Use of FERC Account 385. If costs from Account 385 are being directly assigned to small commercial customers, then the utility is not using this account for its proper purpose, booking "special and expensive costs" for "large industrial customers." Taking this point further, this may mean that the utility is not strictly following the FERC's uniform system of accounts.

- Costs are being improperly assigned. If the account does contain only costs associated with large industrial customers, then small commercial customers should not receive more than 94 percent of the direct assignment.

- The utilities are over-investing in metering and regulating equipment. If indeed small commercial customers merit special and expensive metering and regulating equipment, then the utility is over-investing in such items.

My overriding concern is that the treatment of this account is not an isolated incident, but indicative of larger problems with the cost of service study.

Q. What is your recommendation regarding the allocation of FERC Account 385?

A. I recommend that the amounts in FERC Account 385 be allocated entirely to S.C. 4. Of all of the utilities' rate classes, No. 4 best fits the definition of "Large Industrial." If

appropriate some of the costs may also be allocated to Service Classification 5 (Standby Service) and other rate classes that include large industrial customers.

SECTION VI. RATE DESIGN

Q. What changes are Peoples Gas and North Shore Gas proposing to make in their rate design?

A. As described in the Direct Testimony of Peoples Gas witness Grace, the utilities are proposing a number of changes to their rate design. One of the biggest changes concerns fixed costs:

> [T]he Company is proposing to recover a greater portion of fixed costs through fixed charges. Almost all of the Company's costs, about 95 percent, are fixed, i.e. they do not vary with throughput. However, in the interest of rate design continuity, the Company has historically recovered a large portion of such fixed costs through non-fixed volumetric charges. For instance, in the Company's last rate case filed over twelve years ago in Docket No. 95-0032, about 98% of the Company's costs were fixed while only 27% of costs were recovered through fixed charges.[25]

Testifying for North Shore, Ms. Grace, repeats this theme.[26] A couple of items strike me from this passage. First, every economist knows that all costs are variable in the long-run: they are fixed only in relation to the time period studied.[27] Second, since the last rate case, the percentage of fixed costs as calculated by the Companies has actually *fallen* from 98 percent to 95 percent for Peoples Gas. (North Shore Gas claims a 1995 figure of

[25] PGL Ex. VG-1.0 at 8.
[26] NS Ex. VG-1.0 at 6, 7. Ms. Grace notes, however, that 99% of North Shore's costs are fixed, and that in the prior rate case, 95-0031, about 97% of the Company's costs were fixed while only 28% of costs were recovered through fixed charges.
[27] See the discussion in Mankiw, N. Gregory. *Principles of Economics*. Third Edition. Thomson Southwestern: 2004. Pages 276 through 282. See especially Figure 7 on page 282.

97 percent.)[28] Thirdly, and this is a more generic comment about cost of service, there is a great deal of circularity at work with such analyses. The Companies make a number of references along the lines of "the ECOSS shows"[29] this, the "the ECOSS indicates that."[30] In fact, cost of service studies largely reflect the choices and decisions made by the modeler.

As NARUC points out,

> There is no scientifically correct method of making necessary allocations. A certain amount of judgment must be used in any cost of service study. Consequently, cost allocation studies should only be utilized as a general guide or as a starting point for rate design.[31]

Q. How do you see this effort to increase fixed charges?

A. I see the utilities' efforts to increase their fixed charge recovery as one part of a larger effort to accomplish revenue decoupling: unlinking the utilities' revenues from the actual volumes of natural gas delivered to customers. Increasing the amount or revenue recovered through fixed charges is one step down that path. Instituting the Rider UBA (Uncollectible Balancing Adjustment) and Rider VBA (Volume Balancing Adjustment) are two other mechanisms that further remove the utilities' revenues from the effects of variability in the actual volumes delivered and other sources of revenue variability. Shifting additional costs to the customer charge, along with Riders UBA and VBA, makes it appear that the utilities are going for a belt and suspenders and tower crane approach to keeping their revenues elevated.

Q. What, specifically, are the utilities proposing in regards to fixed charges?

[28] See footnote 27.
[29] See PGL Ex. RJA-1.0, page 2, line 28; NS Ex. RJA-1.0, page 2.

A. Peoples Gas proposes the following:

> Under proposed rates, the Company will recover 42 percent of its fixed costs through fixed charges. While not completely matching fixed costs and fixed charges, the Company's proposed rates will provide more balance than its current rates and send more accurate price signals to customers.[32]

North Shore proposes a similar rate shift, with 48 percent of its fixed costs to be recovered through fixed charges.[33]

Q. Do you agree that the Company's proposed rates send better price signals?

A. Not necessarily. Turning again to Peoples Gas Exhibit VG-1.4, page 2 of 2, the utility proposes the following increases in monthly customer charges for S.C. Nos. 1 and 2.

Peoples Gas Current and Proposed Monthly Customer Charges

Service Classification	Present Rate	Proposed Rate	$ Increase	% Increase
No. 1 Non-Heating	$9.00	$11.25	$2.25	25%
No. 1 Heating	$9.00	$19.00	$10.00	111%
No. 2 Meter Class 1	$15.00	$21.00	$6.00	40%
No. 2 Meter Class 2	$22.00	$60.00	$38.00	173%

[30] See PGL Ex. VG-1.0, page 6, line 123.
[31] NARUC, *Gas Distribution Rate Design Manual*, p. 20.
[32] See PGL Ex. VG-1.0, page 9, lines 180 through 184.
[33] See PGL Ex. VG-1.0, page 7, lines 140 through 144.

North Shore Gas Current and Proposed Monthly Customer Charges

Service Classification	Present Rate	Proposed Rate	$ Increase	% Increase
No. 1 Non-Heating	$8.50	$10.50	$2.00	24%
No. 1 Heating	$8.50	$16.00	$7.50	88%
No. 2 Meter Class 1	$15.00	$17.00	$6.00	13%
No. 2 Meter Class 2	$22.00	$60.00	$38.00	173%

In reviewing these rates, the Commission should keep a number of things in mind. First, any increase in a rate element of more than 100 percent constitutes rate shock, and consequently, fails all tests for "gradualism," despite assurances from Ms. Grace to the contrary. Further, the Companies have not proposed any mitigation measures, such as a multi-year phase-in.

Next, the high customer charge rate for Heating customers is needed (or made possible, depending upon your point of view) because the Companies propose that the Commission actually *lower* the per therm distribution charge. While the customer charge for Peoples is increasing at a triple digit rate, the volumetric charges are falling by more than 8 percent for volumes over 50 therms. Likewise, with regard to North Shore, while the customer charge is increasing by 88 percent, the volumetric charges are falling by a significant 45 percent for volumes over 50 therms.

Q. Aren't lower prices always a good thing?

A. Not necessarily. As I discussed above, sharply higher fixed costs fall disproportionately on those least able to pay, failing the "social goals" test. A proposal having some rate

elements increase dramatically, while other rate elements fall dramatically, fails the "stability" test.

With Peoples Gas claiming that overall costs have increased by more than $100 million and North Shore claiming that overall costs have increased by more than $6 million, having volumetric rate elements decrease sends the wrong price signal. It signals consumers to consume more volume, which will result in the need for future system expansions and higher future fixed costs. Further, lowering volumetric charges discourages conservation efforts, failing the "conservation of resources test", a rate design objective I referenced earlier in my testimony. As it is the actual burning of natural gas that produces negative environmental impacts, lowering volume charges fails the "environmental protection test." While we all prefer to see rates fall rather than rise, prices should fall when there are sound economic reasons to do so.

Q. What is your conclusion regarding rate design?

A. The Companies' proposal to shift more costs to the fixed charge does appear to serve their narrow interests in reducing risk of revenue recovery. However, I have identified at least six rate design objectives that suffer as a result of this proposal: fairness, equity, stability and gradualism, social goals, conservation, and environmental impacts.

Q. What is your recommendation regarding fixed charges for S.C. Nos. 1 and 2?

A. Consistent with my recommendation to keep S.C. No. 1 whole, I propose that the monthly customer charge for all Peoples Gas residential customers be set at no more than $10.50. This represents a $1.50 or 16.7 percent increase over the current level. The

volumetric charge would then be adjusted to achieve the needed revenue requirement, based on the level of revenue increase ultimately awarded to Peoples Gas.

For S.C. No. 2, Meter Class 1, any approved increase in the Companies' revenue requirement should be allocated by increasing the customer charge to no more than $19.00, an increase of $4.00 or 26.6 percent from current levels. For Meter Class 2, I recommend limiting the customer charge increase to $5.00, which would produce a $27 monthly charge, or 22.7 percent increase from the current level. The volumetric charge would then be adjusted to achieve the needed revenue requirement, based on the level of revenue increase ultimately awarded to Peoples Gas.

Q. When you recommend adjusting volumetric charges to make up any difference in revenue requirement, to what charges are you referring?

A. When I recommend adjusting "volumetric charges" to make up any difference in revenue requirements, I am recommending the adjustment of the current distribution charge design. The Companies, in recommending the bifurcation of S.C. 1, are also recommending the shifting of non-heating customers to a uniform rate per therm for distribution charges. My recommendation would adjust rates with the current two-block rate design as a starting point.

Regardless of the final revenue requirement figure for each utility, I believe my recommended customer charge rates will be appropriate. Increasing the fixed charges by the amounts I propose will help accomplish the Companies' goal of increasing fixed cost recovery through fixed charges, but without placing undue hardship on smaller customers.

Q. Do you support declining block rates?

A. It is widely understood that declining block rates for "energy" or volume-type charges promote consumption and send the incorrect price signal that costs fall as the volume consumed grows. Peoples Gas' proposal to increase the second block for non-heating customers from 11.445 cents per therm to more than 51 cents per therm is grossly inconsistent with any concept of gradualism.[34] That being said, to eliminate block rates in these Dockets represents "a bridge too far" given all of the other changes proposed.

Q. Returning to fixed charges, why do you recommend limiting the customer charges to those levels?

A. My recommended customer charges represent significant increases over current levels, but at levels that would not represent an undue hardship on customers, especially low income and fixed income customers.

Futhermore, customer charges at the levels I propose would be comparable to customer charges for similar rate classes found at the state's other investor-owned natural gas utilities. My Exhibit WLG-3.1, Schedule 6 contains a comparison between the fixed monthly charges and volumetric charges for residential and small commercial customer of the state's investor-owned natural gas utilities. Due to differences in structures, a direct comparison is always difficult, but the data in Schedule 6 prove illustrative. As shown in Schedule 6, a $10.50 monthly customer charge for Residential customers would match the one charged by MidAmerican and exceed the level charged by Illinois Power and NICOR. It would fall below these charged by Central Illinois and Central Illinois

[34] A similar proposal for North Shore Gas increases the second block from 12.2 cents per therm to 28.7

Power-Metro Area, placing the Peoples Gas charge squarely in the middle. Please note that all of the other utilities would likely charge volumetric rates below that of Peoples Gas.

For General Service Customers, at my recommended levels, customer charges for Peoples Gas General Service Meter Class 1 customers will again match MidAmerican's and fall in the midst of the other comparable utilities' rates. For Meter Class 1, a $27 customer charge would fall below those of some utilities with two-tiered rates, but appears appropriate, given Peoples block rate structure for volumetric energy charges.

Q. What are your recommendations concerning North Shore Gas and their monthly customer charge?

A. My recommendations concerning North Shore Gas are as follows:

As for the S.C. 1 residential service charge, I recommend that the monthly customer charge for both heating and nonheating customer be retained at the current $8.50 level, based on the position of Attorney General Witness David Effron that North Shore Gas' overall revenue should be reduced. Keeping this rate element the same, while reducing overall revenues, increases the amount of fixed costs collected through fixed charges.

For S.C. 2 (General Service), Meter Class 1 and Meter Class 2, I also recommend keeping the current monthly customer charges of $15 and $22, respectively, for the same reasons as described above.

Miscellaneous Rate Design Items

Q. Are there any other rate design changes to which you object?

A. Yes. The Companies propose to increase the fee for dishonored checks by a substantial amount without any cost of service backing. While we maintain a cost of service study has its drawbacks as the sole basis for rate design, it does serve as a useful starting point and is an indispensable reasonableness check on rates.

The Companies propose to increase their fee for dishonored checks and incomplete electronic withdrawals to $25.[35] Neither utility provided any cost basis for this higher figure. The Attorney General issued data request No. 8-24 to Peoples Gas and North Shore Gas. The utilities' response to this data request is reprinted as Exhibit WLG-3.1, Schedule 7. In their Response, the Companies state that,

> A. The Company has performed no analyses, research or other studies in respect of the $25 charge and there are no workpapers associated with the fee.
>
> B. The Companies have not conducted an analysis to identify the actual costs associated with dishonored checks or electronic payments.

Q. What is your recommendation concerning these items?

A. I recommend that the Companies keep these charges at current levels until they provide a reasonable cost basis for changing them.

SECTION VII. WEATHER NORMALIZATION DATA

Q. How are Peoples and North Shore proposing to adjust test-year billing units for normal weather?

A. According to Ms. Grace, Peoples and North Shore are proposing to adjust actual billing units experienced during the test year (October 1, 2005 – September 30, 2006) for "normal" weather,

> The Company's test year reflects weather that was warmer than normal. Therefore, Peoples Gas (and North Shore) developed a weather adjustment that would increase sales volume to a level reflecting normal weather conditions.[36]

Q. What data did Peoples use to accomplish this weather normalization?

A. According to the Companies' witness Brian M. Marozas, the utilities used a 10-year average of Heating Degree Days (HDD), for the period 1997 to 2006. This ten year average produced a forecast of 6,044 HDD for a "normal" winter.[37] Mr. Marozas states in his testimony that he used the average of historical annual HDD *to predict weather one year into the future*, and then concludes that a 10-year HDD average outperforms a 30-year average in predicting weather one year into the future.[38]

Q. To what time period is test-year weather normalized in most circumstances?

In most circumstances, weather is normalized to a 30-year average of heating degree days (HDD) produced by the U.S. Government's National Oceanic and Atmospheric Administration (NOAA). NOAA data are considered the standard data for meteorological and climatological purposes.

Q How does NOAA define normal weather data?

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[35] See PGL Ex. VG-1.0, page 32, lines 709 through 713; NS. Ex. VG-1.0, page 28 , lines 617, through page 29, line 630..
[36] See PGL Ex. VG-1.0, p. 51, lines 1121 through 1123; NS Ex. VG-1.0, p. 45, lines 984 through 986.
[37] See NG Ex. BMM 1.0, p. 1, lines 15-16 and PGL Ex. BMM-1.0, p. 1, lines 16-17.
[38] See PGL Ex. BMM 1.0, p. 4, lines 80-83.

A. NOAA defines "Climatological Normal" as "The prevailing set of weather conditions calculated over a 30-year period, presently 1971-2000."[39]

Q. Why is a 30-year period, defined by decades, considered "normal"?

A. As NOAA explains:

> The term climatic "normal" has faced a dilemma since its introduction a century and a half ago. A climate normal is defined, by convention, as the arithmetic mean of a climatological element computed over three consecutive decades (World Meteorological Organization, 1989).... a normal value is usually not the most frequent value nor the value above which half the cases fall." The casual user, however, tends to (erroneously) perceive the normal as what they should expect. Dr. Helmut E. Landsberg, who became Director of Climatology of the U.S. Weather Bureau in 1954 and, later, Director of the Environmental Data Service, summarized the dilemma quite well over four decades ago (Landsberg, 1955): "The layman is often misled by the word. In his every-day language the word normal means something ordinary or frequent. ...When (the meteorologist) talks about 'normal', it has nothing to do with a common event..... **For the meteorologist the 'normal' is simply a point of departure or index which is convenient for keeping track of weather statistics..... We never expect to experience 'normal' weather**." (citations in the original and emphases added)[40]

From this accepted description of "normal," we can see that Mr. Marozas' analysis of the one-year predictive value of various data sets is misguided. Normal weather data is not meant to predict the actual weather for the next unit of time, but rather to describe the typical conditions in a certain area over the complete cycle of weather one is likely to encounter in that place. To use the data in the manner suggested by Mr. Marozas is to misuse the data. The 30-year period has been used not for its weather predictive value but for its climate descriptive value and as "a point of departure or index…for keeping track of weather statistics." Accordingly, Mr. Marozas' attempt to predict next year's

[39] See NOAA's website at http://www.weather.gov/climate/help/glossary.php.
[40] See NOAA at http://www.crh.noaa.gov/grr/climate/normals.

weather, rather than find an appropriate way to adjust test year revenues to reflect *climate* normals, is an inappropriate exercise.

Q. Why is Mr. Marozas' selection criterion inappropriate?

A Mr. Marozas selects a data set based on its performance in "predicting" the weather one year hence.[41] While he uses a "common forecasting technique", he applies this technique to data not designed for the purpose. As the above quote from NOAA makes clear, long-term climate statistics cannot be used "to predict weather." Rather, such data are to be used to describe the climate in a given area.

As such, NOAA's 30-year data do an excellent job of describing a climate, with its multi-decade cycles of change, quite well. Shorter intervals of data simply cannot reflect the full range of experience likely to occur over a given geographic area.

Q. Has the Commission previously allowed the use of 10-year data for weather normalizing revenues?

A. Yes. In a recent Nicor rate case (Docket No. 04-0779), the Commission allowed[42] the use of 10-year data in weather normalizing natural gas utility revenues. In the Nicor case, the Commission found that a utility could adopt the use of something other than 30-year data, regardless of the utility's past practice. Nicor's statistician (Herrera) made arguments for the use of 10-year data,[43] similar to those made by Mr. Marozas in this case. In the Nicor case, however, no witness challenged the analysis as I am doing in my testimony.

[41] See Mr. Marozas North Shore Gas Direct Testimony, p. 3. lines 46 through 48.
[42] See Nicor (04-0779), Order at 52-57.
[43] See Nicor (04-0779), Order at 53.

Further, Nicor witness Takle, who also appears for the Companies in this docket, argued that a warming climate suggested the need to use more recent data.[44] Again, no witness challenged this specific argument in the Nicor case. It is common knowledge that global warming or climate change is a phenomenon that manifests itself over centuries, not years. Climate change describes long-term trends. It does not guarantee that next year will be warmer than the last. At any time, extremely cold (even record cold) weather is possible over a number of years. More important, an awareness of global warming trends does not immediately redefine the climatic norm from which HDD variations should be measured.

Q. Are you challenging the concept of global warming or of global climate change?

A. No, I am not. Just as a cold day appearing in January does not disprove global warming, as skeptics would have it, global warming theory does not hold that we can never experience cold weather again.

Q. What effect does the use of non-standard data have on the Companies' weather normalization of test-year revenues?

A. As shown in table 2 of Mr. Marozas' testimony,[45] use of a 30-year average would increase "normal" HDD at the O'Hare location from 6,044 HDD to 6,401 HDD, an almost 6 percent difference. Use of the data for uncertain, short-term weather predictions, instead of describing the more stable regional climate, yields a lower "normal" HDD estimate that will underestimate the utility's weather-normalized revenues.

[44] *Ibid.*
[45] See Mr. Marozas Peoples Gas Direct Testimony, Page 7, lines 125 through 126.

Q. What is your recommendation regarding data for weather normalization of test-year revenues?

A. I recommend the Commission order the utilities to recalculate their weather normalized test year revenues using standard NOAA 30-year weather data for the period 1971-2000.

Q. Does this conclude your Direct testimony?

A. Yes it does.